

# SEQUENCE LISTING

<110> Mirkin, Chad A.  
 Letsinger, Robert L.  
 Mucic, Robert C.  
 Storhoff, James J.  
 Elghanian, Robert  
 Taton, Thomas A.

<120> NANOPARTICLES HAVING OLIGONUCLEOTIDES ATTACHED THERETO  
 AND USES THEREFOR

<130> 4149-1-1-1-1

<140> Not Yet Assigned

<141> 2000-06-26

<150> 60/031,809

<151> 1996-07-29

<150> PCT/US97/12783

<151> 1997-07-21

<150> 09/240,755

<151> 1999-01-29

<150> 09/344,667

<151> 1999-06-25

<150> 60/200,161

<151> 2000-04-26

<160> 64

<170> PatentIn Ver. 2.1

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
 synthetic sequence

<400> 1

aaacgactct agcgcggtata

20

```
<210> 2
<211> 20
<212> DNA
<213> Artificial Sequence
```

<220>  
<223> Description of Artificial Sequence: random  
synthetic sequence

<400> 2  
atggcaacta tacgcgctag

20

```
<210> 3
<211> 16
<212> DNA
<213> Artificial Sequence
```

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 3  
ccttgagatt tccctc

**16**

```
<210> 4
<211> 16
<212> DNA
<213> Artificial Sequence
```

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 4  
gagggaaatc tcaagg

**16**

```
<210> 5
<211> 18
<212> DNA
<213> Artificial Sequence
```

<220>  
<223> Description of Artificial Sequence: random  
synthetic sequence

<400> 5  
aacttgcgct aatggcga 18

<210> 6  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 6  
aagttgcgct ttacggctaa tggcga 26

<210> 7  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 7  
tctccttccc ttttc 15

<210> 8  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 8  
gaaaagggaa ggaga 15

<210> 9  
<211> 15  
<212> DNA  
<213> Artificial Sequence

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

**THE** **WORLD'S** **LARGEST** **BOOKSTORE**

[illegible][illegible][illegible][illegible]

**100**

[illegible][illegible][illegible][illegible]

**10**      **9**      **8**      **7**

[illegible][illegible][illegible][illegible]

**10**      **9**      **8**      **7**

[illegible]

**10**      **9**      **8**      **7**

[illegible][illegible][illegible][illegible][illegible]

**10**      **9**      **8**      **7**

[illegible]

<210> 13  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 13  
agcatgggtcg ataggaaacg actctagcgc

30

<210> 14  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 14  
gcgctagagt cgttt

15

<210> 15  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 15  
agcatgggtcg ataggatggc aactatacgc

30

<210> 16  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

24

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

**30**

30

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

12

6

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 20

cgcatcagg at

12

<210> 21

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 21

tacgagttga gagagtgtccc acat

24

<210> 22

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 22

tacgagttga gaatcctgaa tgcg

24

<210> 23

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 23

tacgagttga gaatcctgaa tgct

24

<210> 24

**Bob's Book Club** is a monthly book club for members of the community. The club meets on the first Tuesday of each month at 7:00 PM at the local library. The current book is *The Hobbit* by J.R.R. Tolkien. For more information, visit [www.bobsbookclub.com](http://www.bobsbookclub.com).

24

23

25

**<400> 27**



24

**<211> 12**

**<212> DNA**

**<213> Artificial Sequence**

**<220>**

**<223> Description of Artificial Sequence:random  
synthetic sequence**

**<400> 28**

taggacttac gc

12

**<210> 29**

**<211> 48**

**<212> DNA**

**<213> Artificial Sequence**

**<220>**

**<223> Description of Artificial Sequence:random  
synthetic sequence**

**<400> 29**

tacgagttga gaccgttaag acgaggcaat catgcaatcc tgaatgcg

48

**<210> 30**

**<211> 24**

**<212> DNA**

**<213> Artificial Sequence**

**<220>**

**<223> Description of Artificial Sequence:random  
synthetic sequence**

**<400> 30**

tgcattgattg cctcgtctta acgg

24

<210> 31

**<211> 72**

**<212> DNA**

### <213> Artificial Sequence

**<220>**

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 31

tacgagttga gaccgttaag acgaggcaat catgcatata ttggacgctt tacggacaac 60  
atcctgaatg cg 72

<210> 32

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 32

gttgtccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg 48

<210> 33

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 33

tctcaactcg ta 12

<210> 34

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 34

tacgagttga gaatcctgaa tgcg 24

<210> 35

<211> 12  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 35  
cgcatcagg at

12

<210> 36  
<211> 141  
<212> DNA  
<213> anthrax

<400> 36  
ggcggatgag tcagtagtta aggaggctca tagagaagta attaattcgt caacagaggg 60  
attattgtta aatattgata aggatataag aaaaatatta tccagggtta tattgtagaa 120  
attgaagata ctgaagggt t 141

<210> 37  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 37  
taacaataat ccctc

15

<210> 38  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 38  
atccttatca atatt

15

<210> 39  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 39  
tgagcctcct taactactga ctcacccgcc

30

<210> 40  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 40  
tgttgacgaa ttaattactt ctcta

25

<210> 41  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 41  
tataaccctg gataatattt ttcttat

27

<210> 42  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 42  
aagcccttca gtatcttcaa tttctacaa

29

<210> 43  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 43  
tctcaactcg taaaaaaaaa aa

22

<210> 44  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 44  
tacgagttga gaatcctgaa tgcg

24

<210> 45  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 45  
aaaaaaaaaa cgcattcagg at

22

<210> 46  
<211> 22  
<212> DNA  
<213> Artificial Sequence

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

[illegible][illegible][illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

[illegible][illegible]

$\Gamma_{\text{eff}}^{(n)} = \frac{\Gamma^{(n)}}{(2\pi)^n} \int d^4x_1 \dots d^4x_n \delta(x_1 - x_2) \dots \delta(x_{n-1} - x_n)$

[illegible][illegible]

$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$

[illegible][illegible]

THE UNIVERSITY OF CHICAGO

12

32

32

12

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

**12**

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

20

27

**12**



```
<210> 58
<211> 15
<212> DNA
<213> Anthrax
```

<400> 58  
atccttatca atatt

```
<210> 59
<211> 12
<212> DNA
<213> Artificial Sequence
```

<400> 59  
tctcaactcg ta

```
<210> 60
<211> 24
<212> DNA
<213> Artificial Sequence
```

<400> 60  
tacgagttga gaatcctgaa tgcg

```
<210> 61
<211> 48
<212> DNA
<213> Artificial Sequence
```

<400> 61  
gcqtaagtcc taacgtacta acggagcaga attgccagag ttgagcat

<210> 62  
<211> 72  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 62  
gcgtaagtcc tacaacaggc atttcgcagg ttatatacgt actaacggag cagaattgcc 60  
agagttgagc at 72

<210> 63  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 63  
tgcattgattg cctcgtctta acgg 24

<210> 64  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:random  
synthetic sequence

<400> 64  
gttggtccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg 48